

REMARKS

The claim informalities noted by the Examiner have been corrected.

The Prior Art grounds of rejection are respectfully traversed. The independent claims have been amended to more clearly point out distinctions between our claimed arrangements and those of the prior art.

Our claimed optical disk arrangements include a super-resolution film which stabilizes a semiconductor exciton. Using our claimed arrangements results in improved super-resolution characteristics, thereby increasing the recording density.

Iida et al. does not disclose semiconductor particles including an organic group covalently bonded thereto.

Murray et al. does not disclose dispersing semiconductor particles in a polymer matrix.

Liz-Marzan et al. discloses semiconductor particles including an organic group covalently bonded thereto. However, the semiconductor particles are coated with SiO₂ (refer to FIG. 1) and therefore, the reference differs from the present invention. Liz-Marzan et al. discloses a structure wherein semiconductor particles coated with SiO₂ are dispersed into a polymer matrix, whereas our claimed inventions require that "the semiconductor particles are directly in contact with the polymer matrix". Furthermore, when semiconductor particles are bonded with a SiO₂ through an organic group (as with Liz-Marzan et al.) satisfactory super-resolution characteristics cannot be obtained because the SiO₂ forms an interfacial level, causing a semiconductor exciton to lose stability. For example, refer to page 43 of our application; the description related to "Sample 1D".

Spanhei et al. discloses semiconductor particles in a polymer matrix, where ligands are used to bond to the surface of the particles to stabilize the particles and then polymerized

to form a matrix. However, since semiconductor particles are bonded with a polymer matrix, easily forms an impurity level, thereby causing a semiconductor exciton to lose stability.

For the reasons described above, our claimed inventions are not obvious in view of any of the references of record, taken singly or in combination.

All outstanding matters having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,
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